Listing and Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. **(Currently Amended)** A fault-tolerant router, comprising:

a first router matrix card, said first router matrix card receiving N parity encoded input digital audio data streams and generating, from said N parity encoded input digital audio data streams, a first set of M parity encoded output digital audio streams, wherein M and N are integers and M is different from N;

a second router matrix card, said second router matrix card receiving said N parity encoded input digital audio data streams and generating, from said N parity encoded input digital audio data streams, a second set of M parity encoded digital audio streams;

an output card coupled to said first router matrix card and said second router matrix card, said output card receiving said first set of M parity encoded output digital audio streams from said first router matrix card and said second set of said M parity encoded output digital audio streams from said second router matrix card, providing, as an output therefrom, a selected one of said first and second sets of M parity encoded output digital audio streams, and switching from said selected one of said first and second sets of M parity encoded output digital audio data streams to an unselected one of said first and second sets of M parity encoded output digital audio data streams based upon detecting a parity error in said selected one of said first and second sets of M parity encoded output digital audio data streams.

2. **(Previously Presented)** The apparatus of claim 1, wherein said output card further comprises a switching circuit coupled to receive said first set of M parity encoded output digital audio data streams from said first router matrix card and said second set of M parity encoded output digital audio data streams from said second router matrix card, said switching circuit switching from said selected one of said first and second sets of M parity encoded output digital audio data streams to said unselected one of said first and second sets of M parity encoded output digital audio data streams in response to assertion of a switching signal.

3. **(Previously Presented)** The apparatus of claim 2, wherein said output card further comprises:

a first parity check circuit coupled to receive said first set of M parity encoded output digital audio data streams from said first router matrix card;

a second parity check circuit coupled to receive said second set of M parity encoded output digital audio data streams from said second router matrix card; and

a logic circuit coupled to receive a first parity error signal from said first parity check circuit and a second parity check error signal from said second parity check circuit, said logic circuit determining, based upon said first parity error signal received from said first parity check circuit and said second parity error signal received from said second parity check circuit, whether to assert said switching signal.

4. **(Previously Presented)** The apparatus of claim 3, wherein said output card further comprises

a first delay circuit coupled to receive said first set of M parity encoded output digital audio data streams from said first router matrix card; and

a second delay circuit coupled to receive said second set of M parity encoded output digital audio data streams from said second router matrix card;

said switching circuit coupled to receive said first set of M parity encoded output digital audio data streams from said first router matrix card and said second set of M parity encoded output digital audio data streams from said second router matrix card via said first delay circuit and said second delay circuit, respectively.

5. **(Previously Presented)** The apparatus of claim 3, wherein said logic circuit asserts said switching signal based upon detection of said parity error in said selected one of said first and second sets of M parity encoded output digital audio data streams regardless of whether a parity error is present in said unselected one of said first and second sets of M parity encoded output digital audio data streams.

6. **(Previously Presented)** The apparatus of claim 3 wherein said logic circuit asserts said switching signal based upon detection of said parity error in said selected one of said first and second sets of M parity encoded output digital audio data streams only if a parity error is not present in said unselected one of said first and second sets of M parity encoded output digital audio data streams.

7. **(Previously Presented)** The apparatus of claim 3, wherein said switching circuit switches back from said unselected one of said first and second sets of M parity encoded output digital audio data streams to said selected one of said first and second sets of M parity encoded output digital audio data streams based upon assertion of said switching signal.

8. **(Previously Presented)** The apparatus of claim 7, wherein said logic circuit asserts said switching signal based upon detection of a parity error in said unselected one of said first and second sets of M parity encoded output digital audio data streams.

9. **(Previously Presented)** The apparatus of claim 7, wherein said logic circuit asserts said switching signal based upon detection of a parity error in said unselected one of said first and second sets of M parity encoded output digital audio data streams only if no parity error is present in said selected one of said first and second sets of M parity encoded output digital audio streams.

10. **(Previously Presented)** The apparatus of claim 7, wherein said logic circuit asserts said switching signal based upon detection of a parity error in said unselected one of said first and second sets of M parity encoded output digital audio data streams regardless of whether a parity error is present in said selected one of said first and second sets of M parity encoded output digital audio data streams.

11. **(Currently Amended)** For a broadcast router having an input card, a first router matrix card and a second router matrix card, said input card transmitting a set of N input digital audio data streams to said first router matrix card and said second router matrix card, said first router matrix card outputting a first set of M output digital audio data streams and said second router matrix outputting a second, replicated, set of M output digital audio data streams, a method of selecting one of said first and second sets of M output digital audio data streams as the output of said broadcast router, wherein M and N are integers and M is different from N, the method comprising:

propagating said first set of M output digital audio data streams through at least one components of said first router matrix card;

each one of said at least one component of said first router matrix card adding at least one bit of information to said first set of M output digital audio data streams propagating therethrough;

propagating said second set of M output digital audio data streams through at least one component of said second router matrix card;

each one of said at least one component of said second router matrix card adding at least one bit of information to said second set of M output digital audio data streams propagating therethrough; and

selecting one of said first and second sets of M output digital audio data streams as the output of said broadcast router based upon a comparison of said at least one bit of information added to said first set of M output digital audio data streams to said at least one bit of information added to said second set of M output digital audio data streams.

12. **(Previously Presented)** The method of claim 11, wherein said at least one bit of information is comprised of at least one status bit.

13. **(Previously Presented)** The method of claim 11, wherein said at least one bit of information is comprised of at least one health bit.

14. **(Previously Presented)** The method of claim 13, wherein selecting one of said first and second sets of M output digital audio data streams as the output of said broadcast router further comprises:

determining a first sum by adding said at least one bit added to said first set of M output digital audio data streams;

determining a second sum by adding said at least one bit added to said second set of M output digital audio data streams; and

selecting one of said first and second sets of N output digital audio data streams as the output of said broadcast router based upon a comparison of said first sum to said second sum.

15. **(Previously Presented)** The method of claim 11, and further comprising:

encoding parity information into said first set of N input digital audio data streams prior to transmission of said input digital audio data streams to said first router matrix of said first router card and said second router matrix of said second router matrix card, said first set of M output digital audio data streams output said first router matrix being a first set of M parity encoded digital audio data streams and said second set of M output digital audio data streams output said second router matrix being a second set of M parity encoded digital audio data streams;

checking said first and second sets of M parity encoded output digital audio data streams for parity errors;

selecting one of said first and second sets M parity encoded output digital audio data streams as the output of said broadcast router based upon the presence of parity errors in said first set of N output digital audio data streams, the presence of parity errors in said second set of N output digital audio data streams and said comparison of said at least one bit of information added to said first set of M parity encoded output digital audio data streams to said at least one bit of information added to said second set of M parity encoded output digital audio data streams.